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A new species of *Pseudospiropes* and new *Cordana* and *Sporidesmiopsis* records from China

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Abstract — *Pseudospiropes xishuangbannicus* sp. nov. from dead branches of *Tsoongiodendron odorum* is described and illustrated. *Cordana lithuanica* and *Sporidesmiopsis dennisii* are recorded for the first time from China. These species were collected from tropical forests in Hainan and Yunnan Provinces, China.

Key words — anamorphic fungi, taxonomy

Introduction

Pseudospiropes was erected by Ellis (1971) with *P. nodosus* (Wallr.) M.B. Ellis as type. Subsequently Castañeda et al. (2001) reviewed and segregated three genera from this genus, including *Minimelanolocus* R.F. Castañeda & Heredia, *Nigrolentilocus* R.F. Castañeda & Heredia, and *Matsushimiella* R.F. Castañeda & Heredia. *Pseudospiropes* is currently distinguished by polyblastic, terminal and intercalary, sympodial conidiogenous cells with enlarged thickened protuberant melanized conidiogenous loci producing solitary acropleurogenous distoseptate conidia.

Numerous fungi collected in tropical and subtropical forests of southern China have recently been reported (Zhang et al. 2009, 2012; Ma et al. 2011a, 2012; Ren et al. 2012). In our ongoing study of anamorphic fungi on dead wood, we found a new *Pseudospiropes* species and two new records for China. These three species are described and illustrated, and the new species is compared with similar species. The specimens are deposited in HSAUP (Herbarium of the Department of Plant Pathology, Shandong Agricultural University) and HMAS (Mycological Herbarium, Institute of Microbiology, Chinese Academy of Sciences).

Taxonomy

Pseudospiropes xishuangbannicus L.G. Ma & X.G. Zhang, **sp. nov.** Fig. 1

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Differs from *Pseudospiropes linderae* by its larger, elongated ellipsoidal conidia with more septa.

Type: China, Yunnan Province: the National Natural Reserve of Xishuangbanna, on dead branches of *Tsoongiodendron odorum* Chun (*Magnoliaceae*), 28 Oct. 2011, L.G. Ma (**holotype**, HSAUP H2092; **isotype** HMAS 243438).

Etymology: *xishuangbannicus*, refers to the type locality.

Colonies on natural substratum effuse, brown, hairy. Mycelium superficial and immersed, with branched, septate, pale brown, smooth hyphae, 1–2 µm wide. Conidiophores distinct, single, erect, unbranched, straight or flexuous, smooth, brown to dark brown, paler toward the apex, 6–12-septate, 80–140 µm long, 4–5 µm wide. Conidiogenous cells holoblastic, polyblastic,

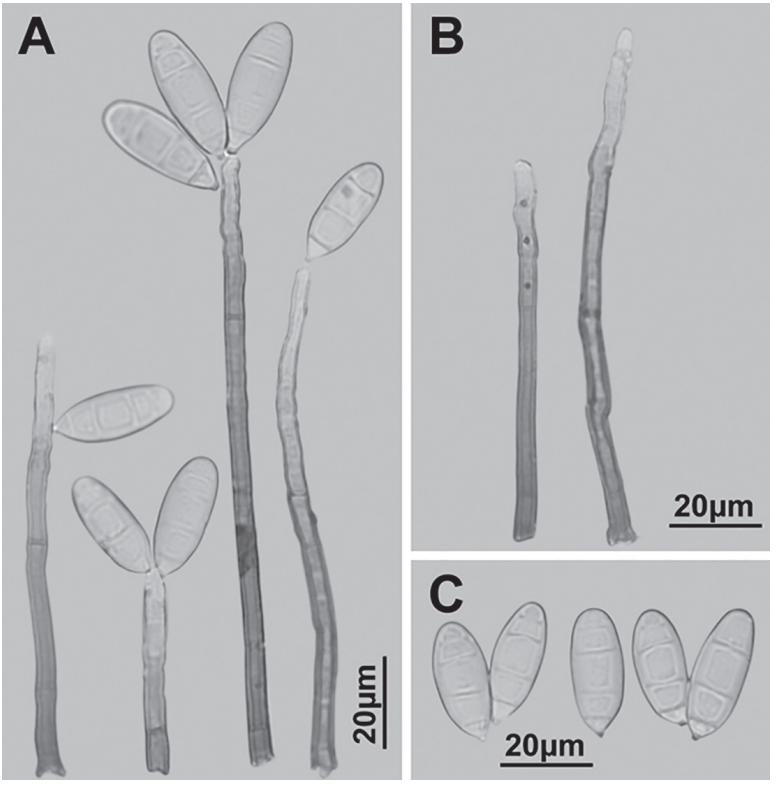

Fig. 1. *Pseudospiropes xishuangbannicus* (Holotype, HSAUP H2092).
A. Conidiophores and conidia. B. Conidiophores with conidiogenous cells. C. Conidia.

indeterminate, terminal becoming intercalary, pale brown, integrated, always with sympodial proliferations. Conidiogenous loci enlarged, thickened, protuberant and dark, lenticular. Conidial secession schizolytic. Conidia solitary, dry, acropleurogenous, simple, elongated ellipsoidal, brown, smooth, 4-distoseptate, 25–32 × 10–12 µm, 0.5–1.5 µm at the narrowly truncate base.

Pseudospiropes xishuangbannicus is most similar to *P. linderae* Jian Ma et al. in conidial shape. However, the conidia of *P. linderae* are smaller and have fewer septa (14–17 × 5.5–6.5 µm, 3-distoseptate; Ma et al. 2011b).

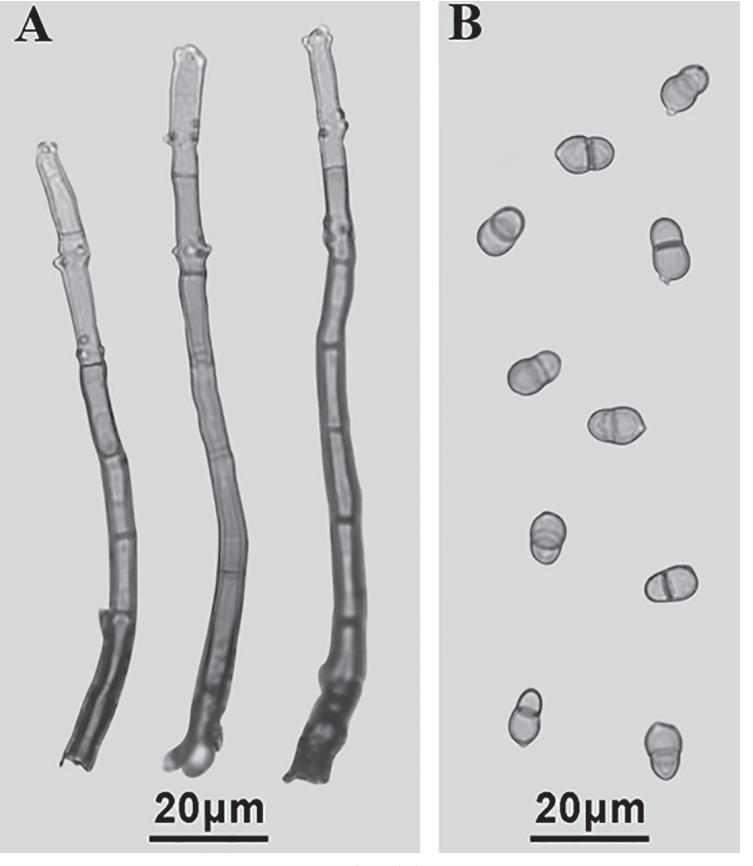

Fig. 2. *Cordana lithuanica*.
A. Conidiophores and conidiogenous cells. B. Conidia.

Cordana lithuanica Markovsk., Mycotaxon 87: 181, 2003. Fig. 2

Colonies on natural substratum brown, effuse. Mycelium mostly immersed and comprising branched, septate, subhyaline to pale brown, smooth hyphae.

Conidiophores distinct, single, erect, cylindrical, straight to flexuous, unbranched, extending apically 1–3 times, 80–210 μm long, 3.5–6 μm wide near the base, 3–5 μm wide at the apex, with terminal and intercalary swellings, septate, smooth, thick-walled, brown to dark brown, paler toward the apex. Conidiogenous cells polyblastic, integrated, sympodial, terminal and intercalary, brown, thick-walled, smooth, denticulate; denticles cylindrical, flat-topped. Conidia solitary, acropleurogenous, simple, obpyriform, 8.5–11 × 5–6.7 μm, medianly 1-septate, constricted at the septum, smooth, thick-walled, brown, rounded at the apex, with a protuberant hilum at the base, basal cell wider than apical cell.

Specimen examined: **CHINA**, **Hainan Province**: Bawangling National Natural Reserve, on dead branches of *Helicia pyrrhobotrya* Kurz (*Proteaceae*), 26 Nov. 2010, L.G. Ma (HSAUP H1874, HMAS 243413).

The Chinese specimen is similar to the original Lithuanian specimens (Markovskaja 2003), except that the Lithuanian material has much larger conidia (13–17.5 × 8–10 μm) and wider conidiophores (10–12 μm). This is the first record of *C. lithuanica* from China.

Sporidesmiopsis dennisii (J.L. Crane & Dumont) Bhat, W.B. Kendrick & Nag Raj, Mycotaxon 49: 71, 1993. Fig. 3

≡ *Brachysporiella dennisii* J.L. Crane & Dumont, Can. J. Bot. 56: 2613, 1978.

Colonies effuse, brown. Mycelium immersed and superficial, of branched, septate, brown, smooth hyphae. Conidiophores erect, distinct, single, straight or flexuous, septate, dark brown, smooth, thick-walled, with several branches near the apex, 250–620 × 13–18 μm. Branches short, dark brown, smooth, thick-walled, septate. Conidiogenous cells terminal and integrated on the branches, cylindrical, monoblastic, percurrent, dark brown, smooth, thick-walled. Conidia obclavate, straight or curved, dark brown becoming brown to subhyaline at the apex, 10–17-septate, smooth, thick-walled, truncate at base, sometimes rostrate, 78–122 × 12–18 μm.

Specimen examined: **CHINA**, **Yunnan Province**: Forbidden Forest of Banna, on dead branches of *Pistacia chinensis* Bunge (*Anacardiaceae*), 31 Oct. 2011, L.G. Ma (HSAUP H2114, HMAS 243415).

The morphological characters of our specimen fit well with those of the type material (Crane & Dumont 1978, as *Brachysporiella dennisii*). This is a first record of *S. dennisii* from China.

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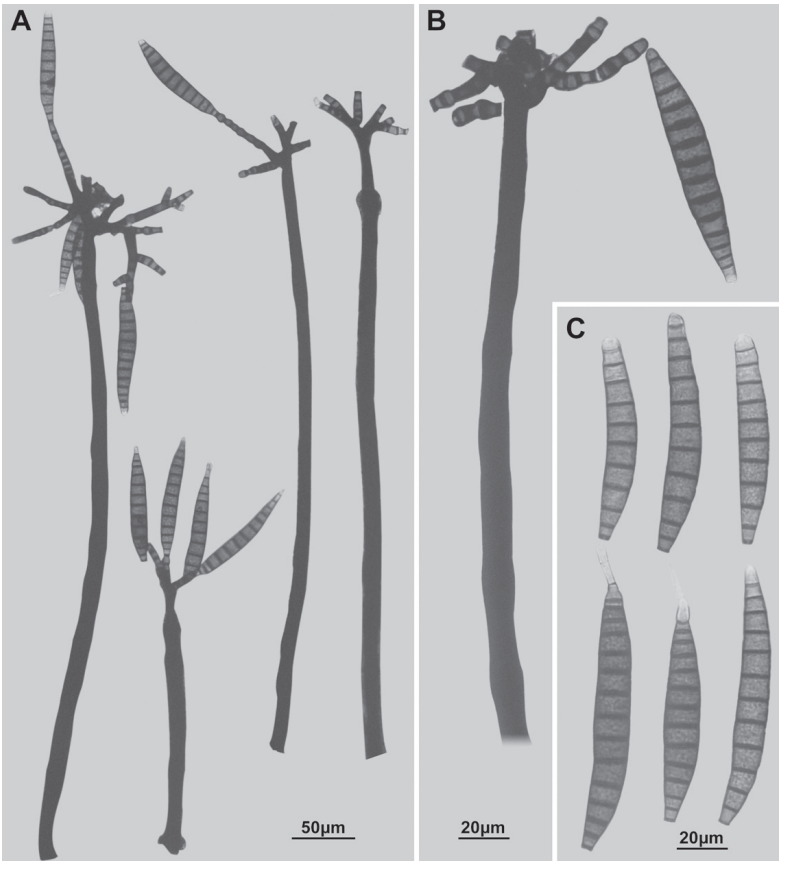

Fig. 3. *Sporidesmiopsis dennisii*.
A, B. Branched conidiophores, conidiogenous cells, and conidia. C. Conidia.

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